



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**UniFirst Corporation  
Penobscot County  
Bangor, Maine  
A-644-71-H-A (SM)**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #3**

## FINDINGS OF FACT

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

### I. REGISTRATION

#### A. Introduction

UniFirst Corporation (UniFirst) was issued Air Emission License A-644-71-E-R/A on October 1, 2012 permitting the operation of emission sources associated with their laundry facility. The license was subsequently amended on June 19, 2013 (A-644-71-F-A) and November 21, 2013 (A-644-71-G-M).

UniFirst has requested an amendment to their license in order to incorporate the requirements of a Consent Agreement and Final Order issued by EPA.

The equipment addressed in this license is located at 70 Godsoe Road, Bangor, Maine.

#### B. Application Classification

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 CMR 100 (as amended). The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions. This amendment will not increase emissions of any pollutant. Therefore, this amendment is determined to be a minor modification and has been processed as such.

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AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

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106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
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PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

C. Definitions

The following definitions are used in this air emission license:

“Shop towel” means a piece of fabric or other material that is used in the process of cleaning mechanical parts or devices of general soil, grease, or oil and for general cleaning in the food service industry.

“Print towel” means a piece of fabric or other material used in the process of cleaning printing or graphic arts equipment, including, but not limited to, printing presses.

“Furniture towel” means a piece of fabric or other material used in the process of stripping or finishing wood furniture.

II. **BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Process Description

General operations at the facility include apparel and other products receiving, sorting, washing, drying, and a variety of pressing, folding, and aggregating steps prior to returning the cleaned products to the customer. UniFirst uses conventional industrial laundry equipment and methods including washing machines and natural gas-fired dryers to launder the apparel, mats, mops, and towels that it rents to customers.

C. Consent Agreement and Final Order

In May 2014 a Consent Agreement and Final Order (CAFO) was signed between the U.S. Environmental Protection Agency (USEPA) and UniFirst. The CAFO addressed the laundering of towels which had the potential to emit significant emissions of VOC. Based on the CAFO, Unifirst has requested that the following requirements be added to their air emission license.

**A. Prohibition on Laundering Print and Furniture Towels**

1. UniFirst may launder shop towels but shall not launder print or furniture towels (as defined in this air emission license).
2. UniFirst shall maintain on-site a written standard operating procedure for determining whether a customer is generating shop, print, and/or furniture towels.
3. UniFirst shall not retrieve from a customer's location shop, print, or furniture towels that contain free liquids.

**B. VOC Emission Cap**

Emissions of VOC from all sources on-site must be limited to 10 tpy (12-month rolling total).

**C. Shop Towel Throughput Limit**

UniFirst's throughput shall be limited to the processing of 2,160,000 pounds of soiled shop towels per year on a 12-month rolling total basis. This throughput limit is based on an emission factor of 8.3 lb VOC per 1,000 pounds of soiled shop towels.

**D. Print and Furniture Towel Handling Procedures**

1. Customers shall be provided with towels to be used as print and furniture towels that are different in color from towels to be used as shop towels. UniFirst shall ask customers to use the appropriate color towel for its intended purpose, as determined for that customer.
2. Print and furniture towels received from customers shall be separated from shop and other towels at the customer location, kept in closed containers or sealed bags during transport, and stored in closed containers at UniFirst while awaiting transport to a third party location for laundering.

**E. Pre-Laundering Procedures for Shop Towels**

1. Soiled shop towels received at UniFirst shall be kept in sealed bags or covered containers until the towels are sorted for washing.
2. Sorted shop towels shall be kept in sealed bags or covered containers until the day that they are washed.

**F. Shop Towel Washing**

1. UniFirst must limit the ratio of soiled shop towel load size to manufacturer's rated washer capacity to no more than 1.7 to 1 on a 12-month rolling average.

For example: UniFirst must limit shop towel load size to 1,020 pounds on a 12-month rolling average for a washer with a manufacturer's rated capacity of 600 pounds.

2. UniFirst must limit the ratio of soiled shop towel load size to manufacturer's rated washer capacity to no more than 2.0 to 1 for any single load.

For example: UniFirst must limit the maximum shop towel load size in any one load to 1,200 pounds for any washer with a manufacturer's rated capacity of 600 pounds.

#### **G. Wastewater**

No later than November 17, 2014, UniFirst shall keep wastewater trenches (beyond the discharge point of the washing machines), settling pits, and equalization tanks covered, except when access is required for activities such as maintenance or sampling.

#### **H. Training**

1. UniFirst shall maintain written standard operating procedures which describe the requirements of this Section H for plant managers and staff who handle towels.
2. UniFirst shall maintain written training materials and provide training for all employees who handle shop towels regarding proper procedures for sorting, transporting, receiving, storing, processing, washing, and drying shop towels.
3. UniFirst shall maintain written training materials and provide training for all employees who handle print and furniture towels regarding proper procedures for sorting, transporting, receiving, and storing print and furniture towels.

#### **I. Recordkeeping**

UniFirst (or its Corporate Training Department) shall provide copies of the following records upon request of the Department or EPA:

1. Definitions of shop, print, and furniture towels and a current written standard operating procedure that UniFirst uses for determining whether a customer is generating shop, print, and/or furniture towels.
2. Current written standard operating procedures for UniFirst employees and managers who handle or are otherwise responsible for towel sorting and laundering.
3. Current training materials and records demonstrating that all employees who handle or are otherwise responsible for print, furniture, or shop towels have been trained on standard operating procedures.
4. Soiled shop towel throughput records, including washer load size records.

D. Annual Emissions

1. Total Annual Emissions

UniFirst shall be restricted to the following annual emissions, based on a 12 month rolling total. The tons per year limits were calculated based on the following:

- Natural gas combustion in each of the gas-fired units up to 8760 hr/year.
- Firing 150,000 gal/year of distillate fuel with a maximum sulfur content of 0.5% by weight.
- Processing of 2,160,000 lb/year of soiled shop towels and an emission factor of 8.3 lb VOC per 1,000 lb of soiled shop towels

**Total Licensed Annual Emissions for the Facility**

**Tons/year**

(used to calculate the annual license fee)

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	HAP (Single/Total)
Boilers #1 & #2 (distillate fuel)	1.3	1.3	5.3	1.8	0.4	—	—
Boilers #1 & #2 (natural gas)	3.7	3.7	0.1	7.1	6.0	—	—
Dryers	2.0	2.0	neg	3.8	3.2	—	—
Finishing Tunnel	0.1	0.1	neg	0.2	0.1	—	—
Shop Towels	—	—	—	—	—	—	0.9/1.6
Facility Wide Limit	—	—	—	—	—	10.0	—
<b>Total TPY</b>	<b>7.1</b>	<b>7.1</b>	<b>5.4</b>	<b>12.9</b>	<b>9.7</b>	<b>10.0</b>	<b>0.9/1.6</b>

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

Based on the facility’s fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, UniFirst is below the major source threshold of 100,000 tons of CO<sub>2</sub>e

per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

### ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-644-71-H-A subject to the conditions found in Air Emission License A-644-71-E-R/A, in amendments A-644-71-F-A and A-644-71-G-M , and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**The following are New Conditions:**

**(23) VOC and HAP Emissions**

[CAFO Docket No. CAA-01-2014-0011]

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3. UniFirst shall not retrieve from a customer's location shop, print, or furniture towels that contain free liquids.

**B. VOC Emission Cap**

Emissions of VOC from all sources on-site shall not exceed 10.0 tpy (12-month rolling total). Compliance shall be demonstrated by meeting the fuel use limits and shop towel throughput limit contained in this air emission license.

**C. Shop Towel Throughput Limit**

UniFirst's throughput shall be limited to the processing of 2,160,000 pounds of soiled shop towels per year on a 12-month rolling total. This throughput limit is based on an emission factor of 8.3 lb VOC per 1,000 pounds of soiled shop towels.

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3. Current training materials and records demonstrating that all employees who handle or are otherwise responsible for print, furniture, or shop towels have been trained on standard operating procedures.
4. Soiled shop towel throughput records, including washer load size records.

DONE AND DATED IN AUGUSTA, MAINE THIS 25 DAY OF November, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for  
PATRICIA W. AHO, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-644-71-E-R/A.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/8/14

Date of application acceptance: 10/9/14

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

